USING S700 AS A SCANNER

To operate the S700 at optimum speed, the following minimum requirements are recommended:

- IBM compatible PC (Pentium or later);
- Microsoft Windows 98/Me, Windows 2000/XP;
- One USB port available
- 100 Megabytes of available hard disk space for installation;
- 32 Megabytes of RAM (64 Megabytes or higher recommended);
- VGA monitor;
- A Microsoft Windows-compatible pointing device (e.g., mouse);
- A CD-ROM drive.

NOTE

When printing scanned images from your computer, the printed output may not look exactly the same as pages copied directly using the Scancopier function. Printed output from your computer depends very much on the software in use.

INSTALLATION PROCEDURE

Installation procedures of the S700 driver and utilities are as follows:

1. Start Microsoft Windows.
2. Insert the Utilities and Documentation CD-ROM into your CD ROM drive.
3. The CD-ROM will autolaunch on most systems. However, if you system does not support autolaunching CD-ROMs, press the Start button, choose RUN, type d:\driver\setup.exe (d: the CD-ROM drive in use), and then click OK.
4. Follow the on-screen instructions to complete the driver installation (You may need to follow the instructions shown on the Add New Hardware Wizard to let Windows identify your new USB device before or after the driver installation.).

UNINSTALLING THE S700 DRIVER

You can uninstall the S700 driver by selecting Start›Programs› S700 and clicking the **Uninstall** driver icon from S700 group.

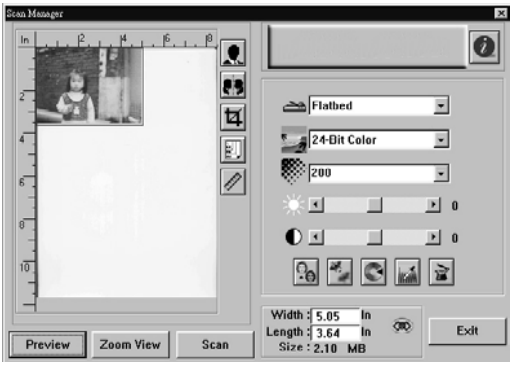
SCANNER OPERATION

1. Open your scanning application.
2. Pull down the File menu and choose **Select Source**.

   If the Select Source command is not available on the File menu, see your application's user's guide to determine how the TWAIN link is used. A dialog box with a list of scanning sources appears.
3. Select S700/32Vx.xx.

   You need to select the source only once, unless you want to choose another scanner.
4. Place the document to be scanned in the ADF or on the flatbed glass platen.
5. Pull down the File menu and choose **Acquire**.

   A dialog box containing scanning features appears.



6. Select the scanning method you want to use on the Scan Method drop-down menu.

7. Select the mode you want to use for your scans on the Image Type drop-down menu.

8. Select a scanning resolution on the Resolution drop-down menu.

9. Select the settings for the scanning features (e.g., Sharpen, Descreen, etc.) that you want to use.

10. Click on the **Preview** or **Scan** button to preview or scan your document(s).

USER INTERFACE

SCAN METHOD

Select how you want to scan on the **Scan Method** drop-down menu.

- **Simplex/One-page**—use this setting if you are using the automatic document feeder (ADF) to scan a single-page document at a time.
- **Simplex /Multi-page**—use this setting if you are using the automatic document feeder (ADF) to scan batches of single-page document at a time.
- **Flatbed**—use this setting if you are using the flatbed to scan one page at a time.

DETERMINING YOUR RESOLUTION

Proper control of the resolution obtains satisfactory detail of scanned images. Resolution is measured by dots per inch (dpi). Normally, the higher the resolution the larger the image file size will be, but at higher quality.

Greater resolution requires more time, memory and disk space. There is a limit beyond which the resolution will not produce much visual improvement, but will make your files more unmanageable.

Resolution: Left = 50 dpi Right = 100 dpi

An A4 size color image scanned at 300 dpi at True Color mode consumes approximately 25 MB of disk space. A higher resolution is recommended only for a small area at True Color mode.

The following table offers a suggestion to help you choose an appropriate resolution.

IMAGE TYPE	RESOLUTION (DPI)
Line Art	200
Color Picture	100
OCR*	300

***OCR**: Stands for **O**ptical **C**haracter **R**ecognition, the process to convert an image to a text format.

SELECTING A PROPER IMAGE TYPE

Select the most appropriate image type depending on your application.

LINE ART (BLACK AND WHITE)

Line Art presents the image in black and white only and there are no intermediate shades of gray in between. That means each pixel of the image is 100% black or 100% white. Line art is the best choice of image type if you want to scan text, pen or ink drawing. Since only 1-bit of black or white information is required for each **pixel***, the disk space required for saving line art images is only about 1/24 of that required to save 24-bit true color images.

*Pixel: A combination of two words: picture and element, a pixel is a single dot on a computer display or in a digital image.

HALFTONE

In addition to the black and white display, Halftone simulates greyscale by using different sizes of dots. When viewed at a distance, the image looks like a gray image yet it consumes the much less disk space. Newspapers generally use halftone images. Since halftone is a type of black and white image, the disk space required is 1/24 of that required to save a 24-bit true color image.

8-BIT GRAY

A single-channel image consists of at least 256 shades of gray. An 8-bit scanner produces a greyscale image with 1024 shades of gray between pure black and pure white. Choose this option if you are scanning black-and-white photographs.

With 8 bits of color information per pixel, the file size of an image is eight times larger than a Black and White image and 1/3 the size of a 24-Bit Color image.

8-BIT COLOR

An 8-Bit Color image provides 256 color hues in the image. The file size of a 256 color image is 1/3 the size of a 24-Bit Color image. Slight banding will be visible in areas which contained graduated color.

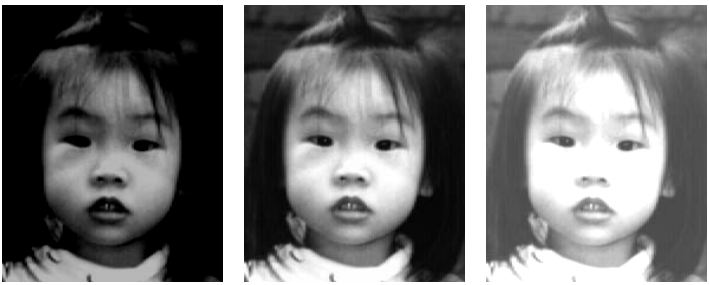
24-BIT COLOR

A 24-Bit Color image consists of three 8-bit color channels. The red, green, and blue channels are mixed together to create a combination of one billion colors which give a more true-to-life quality to the image. Choose 24-Bit Color if you are scanning color photos.

ENHANCING YOUR IMAGE

BRIGHTNESS

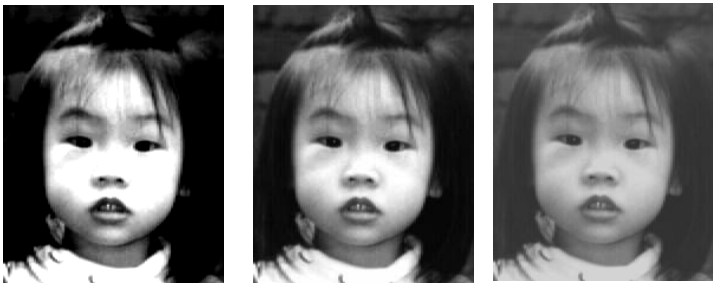
Adjusts the lightness or darkness of an image. The higher the value, the brighter the image.



CONTRAST

Adjusts the range between the darkest and the lightest shades in the image.

The higher the contrast, the bigger the difference between different shades of grey.



INVERT IMAGE

The invert command reverses the brightness and the color in the image, producing a negative image. For color images, each pixel will be changed into its complementary color with the Invert command.

MIRROR

Click on the **Mirror** button to reverse the image (create a mirror image).

PREVIEW AUTO-AREA

Clicking on the **Preview Auto-Area** button automatically crops the preview scan area to the previewed document. This will then be the cropping area for all of the scanned documents.

PAPER SIZE

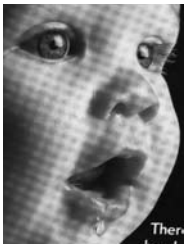
Select a size on the **Paper Size** list of frequently used scan sizes, or your current scan area to perform an immediate selection of your scan size.

UNITS

The **Units** button indicates the measuring system that is in use (Inch, Cm, or Pixel).

DESCREEN

Click on the **Descreen** button to access a drop-down menu that allows you to specify the type of document you are scanning in order to eliminate the moiré pattern* commonly found in printed matter. You can specify *Newspaper*, *Magazine*, or *Catalog*.



*Moiré pattern—an undesirable pattern resulting from the incorrect screen angle of the overprinting halftone.

SHARPEN

Click on the **Sharpen** button to access a drop-down menu that allows you to specify a level to sharpen the scanned image. You can specify a Sharpen setting of *Light*, *More*, *Heavy*, or *Extra Heavy*.

COLOR ADJUSTMENT

Click on the **Color Adjustment** button to enable the button for the **Hue, Saturation,** and **Lightness** feature. Note that the **Advanced Settings** button must be enabled in order to use this feature.

AUTO LEVEL

Click on the **Auto Level** button to add shadow to reveal more details in an image.

ADVANCED SETTINGS

Click on the **Advanced Settings** button to view the advanced settings buttons for Highlight / Shadow, Curves, Color Balance, Hue / Saturation / Lightness, Color Drop-out, and Custom Settings (six buttons on the right side of the TWAIN dialog box).

Highlight / Shadow

This feature is available when 8-Bit Gray, 8-Bit Color, or 24-Bit Color is selected on the **Image Type** drop-down menu. Highlight refers the lightest point in a scanned image; shadow refers the darkest point.

Click on the **Highlight** / **Shadow** button to access the Highlight / Shadow Levels dialog box. You can type values in the text boxes or you can place the mouse cursor over the line, click the right mouse button, and drag the line to specify the values you want.

Use the **Highlight** and **Shadow** settings together to extend the range of color and reveal more details in a color image.

Curves

When you select the **Curves** button, a dialog box appears that allows you to adjust the midtone of the image without losing details in the lightest and darkest areas.

Select the **Curve** or **Line** button, depending on if you want a curved or an angled setting. Place the mouse cursor over the line, click the right mouse button, and drag the line to set the curve you want.

Color Balance

When you select the **Color Balance** button, a dialog box appears that allows you to adjust the color of the image so that it comes close to that of the original.

The default parameters are used to adjust the image. You can type values in the Color Levels text boxes or you can drag the sliding arrow under the color.

Hue /Saturation /Lightness

Click on this button to adjust the hue, saturation, and lightness of an image. This button is enabled when the **Color Adjustment** button is selected. You can type values in the text boxes or you can drag the sliding arrow under the each item.

Hue—specify a value in the **Hue** box to adjust the hue up to 360° by clicking on the desired color on the color wheel or selecting a setting on the dropdown menu.

Note that the level of intensity for a color simultaneously changes when the hue adjustment is made.

Saturation—specify a value in the **Saturation** box to adjust the saturation level of the color. The level of saturation indicates whether the color is pale or rich.

Lightness—specify a value in the **Lightness** box to adjust the color strength.

NOTE

These options are available only when the Color Adjustment button is enabled.

Color drop-out

This feature is available when Black and White, Halftone, or 8-Bit Gray is selected on the **Image Type** drop-down menu. Click on the **Color Drop-out** button to access a dialog box that allows you to choose to remove the R (Red), G (Green), or B (Blue) color channel while scanning.

For example, if your image contains red text or a red background, choose **R channel** (red) to remove the red text or red background.

This feature is applicable only for black-and-white and greyscale images.

Make sure that you have selected a black-and-white or greyscale image type (on the **Image Type** drop-down menu) when you use this option.

Increasing the brightness after removing one of the color channels will make the image clearer.

CUSTOM SETTINGS

Click on the Custom Settings button to access a dialog box where you can save your scan settings and configuration settings. There are two tabs: Scan Settings and Configuration Settings.

Scan settings

The Scan Settings tab allows you to save your scanning feature settings in a file, load an existing file, or delete an existing file.

Saving a scan settings file

Type a name for your settings in the **File Name** text box and click on the **Save** button. Your settings will be saved and the file name will appear in the list box.

Using a scan settings file

You can use an existing settings file. Right-click on the file name for the settings you want to use and click on the **Load** button. The settings in the file will automatically be specified in the scanning features dialog box.

Deleting a scan settings file

Right-click on a file name and press the **Delete** button on the computer keyboard to delete the file.

Configuration settings

The Configuration Settings tab allows you to customize some special settings.

Energy Saving Mode—check the **Enable** box to enable energy savings. You can specify a time delay in the **Minutes** box. Click on the **Apply** button to save the changes.

Hint Setting—check the **Show Hints** box if you want to have flags that show the name of an item appear when you place the mouse cursor on an item in the dialog box. Click on the **Apply** button to save the changes.

MISCELLANEOUS

Width: Shows the current image width.

Height: Shows the current image height.

Size: Shows the current file size of the scanned image.

Lock scale

Click on this button to fix the output width and height despite the selected scan size.

The scale value automatically changes when you apply this option and simultaneously resize the selected area.

Information

Click on the Information button to access a window that gives you information about the scanner and driver.

Preview: Click on the **Preview** button to scan a document so you can review the scanned image. This allows you to specify an area to be scanned and any scanning feature settings to be used for future scans. When a scanning feature is changed and applied, the Preview image is updated for a real-time view of the change.

You can define the area to be scanned by dragging the cursor lines with the mouse.

Zoom view: Click on the **Zoom view** button to preview a selected area.

Scan: Click on the **Scan** button to scan the area with the specified parameters.

You can define the area to be scanned by dragging the cursor lines with the mouse.

Exit: Click on the **Exit** button to cancel the current job.